

Summary – Tennessee Western Valley (Kentucky Lake)

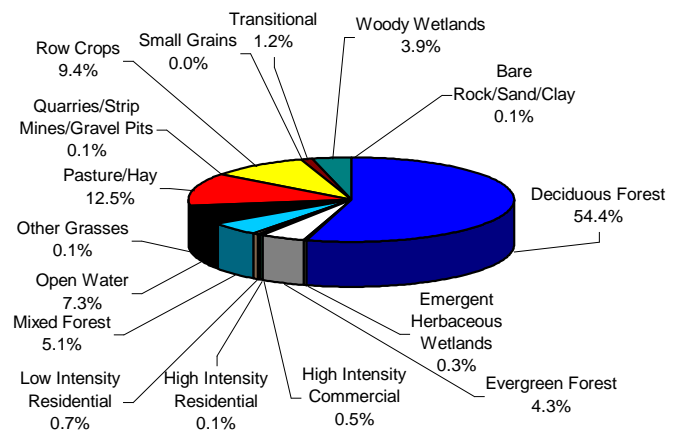
In 1996, the Tennessee Department of Environment and Conservation Division of Water Pollution Control adopted a watershed approach to water quality. This approach is based on the idea that many water quality problems, like the accumulation of point and nonpoint pollutants, are best addressed at the watershed level. Focusing on the whole watershed helps reach the best balance among efforts to control point sources of pollution and polluted runoff as well as protect drinking water sources and sensitive natural resources such as wetlands. Tennessee has chosen to use the USGS 8-digit Hydrologic Unit Code (HUC-8) as the organizing unit.

The Watershed Approach recognizes awareness that restoring and maintaining our waters requires crossing traditional barriers (point vs. nonpoint sources of pollution) when designing solutions. These solutions increasingly rely on participation by both public and private sectors, where citizens, elected officials, and technical personnel all have opportunities to participate. The Watershed Approach provides the framework for a watershed-based and community-based approach to address water quality problems.

Chapter 1 of the Tennessee Western Valley (Kentucky Lake) Watershed Water Quality Management Plan discusses the Watershed Approach and emphasizes that the Watershed Approach is not a regulatory program or an EPA mandate; rather it is a decision-making process that reflects a common strategy for information collection and analysis as well as a common understanding of the roles, priorities, and responsibilities of all stakeholders within a watershed. Traditional activities like permitting, planning and monitoring are also coordinated in the Watershed Approach.

A detailed description of the watershed can be found in Chapter 2, to include information on location, population, hydrology, land use and natural and cultural resources. The Tennessee portion of the Tennessee Western Valley (Kentucky Lake) Watershed is approximately 1,460 square miles and includes parts of nine West Tennessee counties. A part of the Tennessee River drainage

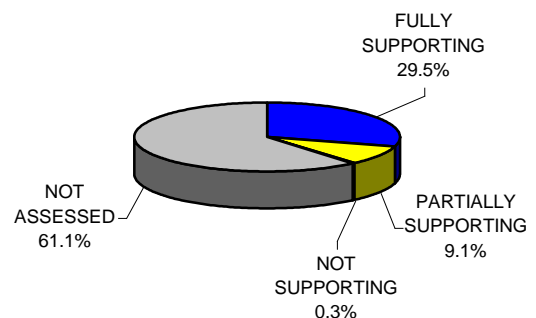
basin, the watershed has 2,043 stream miles and 100,000 lake acres in Tennessee.



Land Use Distribution in the Tennessee Portion of the Tennessee Western Valley (Kentucky Lake) Watershed.

There are three greenways, six interpretive areas, and eight wildlife management areas located in the watershed. Forty-eight rare plant and animal species have been documented in the watershed, including four rare fish species, four rare mussel species, and one rare crustacean species.

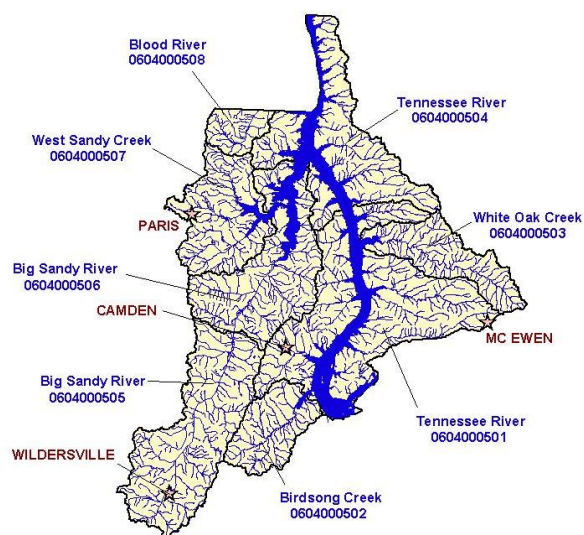
A review of water quality sampling and assessment is presented in Chapter 3. Using the Watershed Approach to Water Quality, 279 sampling events occurred in the Tennessee portion of the Tennessee Western Valley (Kentucky Lake) Watershed in 1999-2000. These were conducted at ambient, ecoregion or watershed monitoring sites. Monitoring results support the conclusion that 29.5% of total stream miles fully support designated uses.



Water Quality Assessment of Streams and Rivers in the Tennessee Portion of the Tennessee Western Valley (KY Lake) Watershed. Assessment data are based on the 2002 Water Quality Assessment of 2,042.6 miles in the watershed.

Also in Chapter 3, a series of maps illustrate Overall Use Support in the watershed, as well as Use Support for the individual uses of Fish and Aquatic Life Support, Recreation, Irrigation, and Livestock Watering and Wildlife. Another series of maps illustrate streams that are listed for impairment by specific causes (pollutants) such as Habitat Alteration, Organic Enrichment/Low Dissolved Oxygen, Siltation, and Pathogens.

Point and Nonpoint Sources are addressed in Chapter 4. Chapter 4 is organized by HUC-10 subwatersheds. Maps illustrating the locations of STORET monitoring sites and USGS stream gauging stations are presented in each subwatershed.



The Tennessee Portion of the Tennessee Western Valley (Kentucky Lake) Watershed is Composed of Eight USGS-Delineated Subwatersheds (10-Digit Subwatersheds).

Point source contributions to the Tennessee portion of the Tennessee Western Valley (Kentucky Lake) Watershed consist of 18 individual NPDES-permitted facilities, one of which discharges into streams that have been listed on the 1998 303(d) list. Other point source permits in the watershed are Aquatic Resource Alteration Permits (16), Tennessee Multi-Sector Permits (35), Mining Permits (21), Ready-Mix Concrete Plant Permits (5) and Water Treatment Plant Permits (2). Agricultural operations include cattle, chicken, hog, and sheep farming. Maps illustrating the locations of NPDES

and ARAP permit sites are presented in each subwatershed.

Chapter 5 is entitled *Water Quality Partnerships in the Tennessee Western Valley (Kentucky Lake) Watershed* and highlights partnerships between agencies and between agencies and landowners that are essential to success. Programs of federal agencies (Natural Resources Conservation Service, Tennessee Valley Authority, U.S. Fish and Wildlife Service and U.S. Geological Survey), and state agencies (TDEC Division of Community Assistance, TDEC Division of Water Supply, Tennessee Department of Agriculture and Kentucky Division of Water) are summarized. Local initiatives of active watershed organizations (Five Rivers RC&D Council) are also described.

Point and Nonpoint source approaches to water quality problems in the Tennessee portion of the Tennessee Western Valley (Kentucky Lake) Watershed are addressed in Chapter 6. Chapter 6 also includes comments received during public meetings, along with an assessment of needs for the watershed.

The full Tennessee Western Valley (Kentucky Lake) Watershed Water Quality Management Plan can be found at:

<http://www.state.tn.us/environment/wpc/watershed/wsmplans/>